ASARCO

1. Gene 0060622
2. File

Department of Environmental Sciences

M. O. Varner
Director

May 15, 1984

Mr. Tom Staible
U.S. Environmental Protection Agency
Region VIII
1860 Lincoln Street - Suite 103
Denver, Colorado 80295

Dear Sir:

Pursuant to my discussions with Mr. Gene Taylor and Mr. Doug Skie of EPA's Helena, Montana Office, I am providing some corresondence relative to laboratory inspections at ASARCO's Salt Lake City Department of Environmental Sciences. Since the laboratory is certified by the State of Utah, the American Industrial Hygiene Association, and the Center for Disease Control, each of these organizations has inpsected the laboratory within the last year. Ms. Carol Campbell of Region VIII has also inspected the laboratory in 1983 as part of local NPDES audits.

I understand that you and a representative of Battelle will be visiting the laboratory on Tuesday, May 22, 1984, to discuss laboratory and quality assurance procedures. Your contact for that meeting will be Mr. Gary R. Stanga, Chief Chemist. If I can be of any assistance prior to or after your meeting, do not hesitate to contact me.

Very truly yours,

Donald A. Robbins
Supervisor of
Environmental Sciences

DAR/bjs
Attach.

cc: Mr. Gene Taylor (w.attach) ✓
Dr. Gary McKown "

84

(Lab Accreditation F.J. 00606 23

ASARCO

DAR ....
LOW ....
SGG ....
JBR ....
SDB ....
RCM ....
GEW ....

Department of Environmental Sciences

M. O. Varner
Director

August 26, 1983

From M.O. Varner
Copied for: R.J. Muth

Mr. M. O. Varner
Building

Laboratory Inspection

Every three years, the American Industrial Hygiene Association conducts a site visit to accredited laboratories to determine if the laboratory continues to maintain standards required for accreditation. Yesterday, our laboratory was inspected by Dr. James Nelson as part of this program.

I felt that you should be aware that Dr. Nelson will recommend re-accreditation on an unqualified basis. Dr. Nelson was very complimentary during the closing conference. A few of the positive impressions he related to me included the observations that: (1) he had not previously visited an accredited laboratory that produced the volume of analyses that our laboratory does (especially considering the size of the laboratory staff), (2) the quality control program was excellent and tailored to the needs of our laboratory rather than being a "canned" general program from EPA or AIHA, and (3) he was impressed with the laboratory staff and management and felt the group had a professional and conscientious approach to performance of their duties.

There were, of course, a few areas such as the condition of several safety showers, the adequacy of several reagent labels, and a few instances of improper reagent storage that were recommended for remedial action.

In conclusion, I feel Asarco is fortunate to have such a dedicated laboratory staff in Salt Lake City and hope that, by copy of this letter, Mr. Stanga and Ms. Nackowski will convey my personal appreciation to their staffs for a job well done. As someone who worked at a bench in the analytical laboratory for quite a few years, I am well aware that for the most part, the only recognition an analyst receives is when he or she "screws up". At this time, considering the very positive comments of one of their unbiased peers, I believe the laboratory staff deserves some positive recognition.

Donald A. Robbins
Supervisor of Laboratory Services

DAR/bjs

cc: RJMuth, SBNackowski, GRStanga

AMERICAN INDUSTRIAL HYGIENE ASSOCIATION 475 Wolf Ledges Pkwy., Akron, OH 44311-1087, 216/752-7294

September 21, 1983

Donald A. Robbins
ASARCO, INCORPORATED
Department of Environmental Sciences
3422 South 700 West
Salt Lake City, UT 84119

Dear Mr. Robbins:

Dr. Nelson closed his report of his visit to your laboratory with a number of recommendations and suggestions. These are appended for your information. Before I take the next step I must have your written action or reaction to the ten matters Dr. Nelson listed as recommendations. A cursory look at the list suggests that this requirement will not be onerous.

Sincerely,

Dwight L. Loughborough
Coordinator of Laboratory
Accreditation

DLL/dld

Attachment

ASARCO, INCORPORATED
Salt Lake City, Utah
84119-001

Recommendations to the Laboratory

1. Label standard solutions with date of preparation, initials of preparer, and expiration date.
2. Dispose of outdated standards and outdated standard solutions.
3. Label reagents with date of first receipt and (if applicable) an expiration date.
4. Arrange all safety shower activating chains so that all are immediately functional. The flow of one laboratory safety shower is obstructed. This should be corrected.
5. Record all laboratory notebook entries in ink rather than pencil.
6. Review the methods and procedures manual at least annually and provide a sign-off sheet in the manual to document completion of the review.
7. Record more complete data on laboratory worksheets. For example, units of measurement should be recorded.
8. Document the specific analytical method in the report of results or elsewhere in data files.
9. Do not store concentrated acids with other potentially unstable chemicals.
10. Secure the gas cylinders stored in the back laboratory.

Suggestions for Improvement

1. Use previous PAT asbestos samples as QA samples.
2. Consider implementing a record keeping system which allows for maintenance and filing of all calibration curves or other calibration data.
3. Consider using internally generated spiked samples for quality assurance purposes, as appropriate (for example, filters spiked with arsenic).

ASARCO

0060626

MOV ☒
DAR ☒
LDW ☐
SGC ☐
JBR ☐
SDB ☐
RCM ☐
GEW ☐

Department of Environmental Sciences

M. O. Varner
Director

October 3, 1983

Lab Certification

Dr. Dwight L. Loughborough
Coordinator of Laboratory Accreditation
American Industrial Hygiene Association
475 Wolf Ledges Parkway
Akron, Ohio 44311-1087

Dear Sir:

Pursuant to your letter of September 21, 1983, I have asked Mr. Gary R. Stanga, Asarco's Chief Chemist, to respond to Dr. Nelson's list of recommendations resulting from his recent inspection of our AIHA accredited laboratory. The points raised in the list of recommendations were verbally reviewed with Dr. Nelson prior to his departure from the laboratory and, as a result, Mr. Stanga had addressed most of them prior to receipt of your letter. I have attached Mr. Stanga's report on action taken in response to Dr. Nelson's suggestions.

In addition to the responses presented by Mr. Stanga, I would like to add that our laboratory has had a long standing program of using PAT silica samples supplied by NIOSH as QC samples that are analyzed with our routine silica analyses.

I was impressed with the professional manner in which Dr. Nelson conducted this inspection and feel that the recommentaions and suggestions of Dr. Nelson and previous AIHA laboratory inpsectors have provided very worthwhile input since Asarco's original involvement with this program.

Please feel free to contact me or Mr. Gary Stanga if additional information is required.

Very truly yours,

Donald A. Robbins
Supervisor of
Environmental Sciences

DAR/bjs
Attach.

cc: MOVarner (w.attach)
GRStanga (w/o attach)

ASARCO

0060627

Department of Environmental Sciences

M. O. Varner
Director

September 27, 1983

Mr. D. A. Robbins
Building

Following is a list of the corrective actions which have been taken in accordance with the recommendations made by Dr. James Nelson during his site visit on August, 1983.

1. & 2. Most standard solutions had the preparation date and the initials of the preparer. Solutions which were not properly labeled or outdated were discarded. Expiration dates were assigned where applicable.

3. Most reagents already had the date of first receipt. Expiration dates were assigned where applicable.

4. All safety showers were inspected and fitted with non-corrosive, plastic shower heads. Each shower was subsequently tested and found to be in good working order.

5. An effort will be made to record laboratory notebook entries in ink rather than pencil.

6. Methods are reviewed annually and initialed by the laboratory supervisor (see attachment).

7. All units of concentration are in ppm or µg/filter depending on sample type unless otherwise designated by the analyst.

8. In general, only NIOSH or EPA approved methods are used. Documentation of methods other than those listed above will be made in the analysts' notebook.

9. The potentially unstable organic chemicals have been removed from the inorganic acid storage area.

10. Spare gas cylinders have been properly secured.

Also, as per Dr. Nelson's suggestions, PAT asbestos filters will be used as QA samples as will internally generated spiked filter samples.

GRS

Gary R. Stanga
Chief Environmental
Chemist

GRS/lb

In addition to this collection of analytical procedures, other references that should be consulted include:

Standard Methods for the Examination of Water and Wastewater (15th Edition)

NIOSH Manual of Analytical Methods (Second Edition)

Manual of Methods for Chemical Analysis of Water and Wastes (U.S. Environmental Protection Agency)

Procedures Reviewed
August 1983

Quality Control Program
Reviewed August 1983

Scott M. Matheson
Governor

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS
Community Health Services
Environmental Health
Family Health Services
Health Care Financing and Standards

OFFICES
Administrative Services
Health Planning and Policy Development
Medical Examiner
State Health Laboratory

STATE OF UTAH
DEPARTMENT OF HEALTH
STATE HEALTH LABORATORY
44 Medical Drive, Salt Lake City, Utah 84113

Francis M. Curry, Ph.D., Director
Room 207 801-533-6131

0060629

From M.O. Varner
Copied for: R.J. Muth

Janaury 23, 1984

File: CDC

Donald A. Robbins, Supervisor
American Smelting & Refining
Department of Environmental Sciences
3422 South 700 West
Salt Lake City, Utah 84119

Dear Mr. Robbins:

The documents relating to the survey of your laboratory on January 19, 1984 have been forwarded to the Bureau of Health Facility Management for processing, and they will inform you of action taken.

As there were not any deficiencies noted, the recommendation for continuing interstate licensure has been made.

It is always our pleasure to visit your laboratory which is so well organized and where the staff is enthusiastic about the quality of work produced.

I wish to thank you, Dr. White, and Sandi for the time and courtesy extended to me during the survey and also your hospitality.

Sincerely,

Ruth B. Orlob, M.T.(ASCP)
Chief
Certification & Approval Section
Bureau of Laboratory Improvement

cc: Lowell White, Ph.D.
Dennis Reynolds

Gary Stanga

0060630

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295

FEB 24 1983

Ref: 8WM-C

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Roy Austin
Operations Manager
Christensen, Inc.
Industrial Road Plant
1822 South Industrial Road
Salt Lake City, Utah 84104

Call: 4874545 EX 2502

Re: NPDES Permit Number UT-0000531
Performance Audit Inspection

Dear Mr. Austin:

On January 20 and 24, 1983, U.S. Environmental Protection Agency personnel conducted a "Performance Audit Inspection" of your waste water treatment facilities. Enclosed is a copy of the Inspection Report for your records. During this inspection, various problems were identified which need to be addressed by your staff. Consequently, we encourage you and your staff to read the Inspection Report in detail and urge that all suggested recommendations be implemented.

In addition, we note that there are certain significant problems relating to the NPDES self-monitoring program of your facility which we feel warrant special attention by your staff. Attached is the "Summary of Major NPDES Self-Monitoring Problems Requiring Corrective Action by Permittee" which delineates these problems. We point out that, with respect to the problems noted at Asarco Environmental Labs, Christensen, Inc., is ultimately responsible for the quality of analytical data generated by the private lab.

We request that you submit to this Agency as well as to the Utah Bureau of Water Pollution Control the "Information Required from Permittee" as outlined in the aforementioned Summary. This information must be submitted to both offices within thirty (30) days of your receipt of this letter.

If you have any questions regarding this matter, please contact Ms. Barbara Hansc of my staff, telephone (303) 837-4335.

Sincerely yours,

Patrick J. Godsil
Chief, Compliance Branch
Water Management Division

Enclosure

cc: Mr. Fred Pehrson w/encl.
Utah Bureau of Water
Pollution Control

II. Introduction

On January 20, 1983, Martin Byrne conducted a Performance Audit Inspection (PAI) at Christensen Diamin Incorporated in Salt Lake City, Utah. During this visit Mr. Leroy Austin was interviewed. The laboratory portion of the inspection was conducted by Carol Campbell on January 24, 1983, at Asarco Environmental Labs, the laboratory which monitors Christensen Diamin's effluent. Mr. Gary Stanga was the primary contact at Asarco.

The facility was first informed by letter of the EPA's wish to perform an on-site inspection, and then contacted by phone to set up a mutually agreeable date for the field portion of this visit. After receiving permission from Christensen Diamin to talk to the lab directly, Gary Stanga of Asarco was contacted by phone to set up the lab visit.

The primary objectives of the PAI were to evaluate the quality of the facility's self-monitoring program and to verify compliance with NPDES permit requirements. The inspection consisted of the following steps:

1) Introduction and briefing on the purpose of the inspection.

2) Discussion of sample collection, preservation, handling and transport techniques.

3) Observation of wastewater flow monitoring techniques.

4) Critical overview of laboratory procedures used in analyzing the samples.

5) Walk-through inspection of the laboratory.

6) Review of laboratory and field recordkeeping procedures and documentation of self-monitoring activities.

7) Discussion of NPDES Study Number Two Performance Evaluation results with facility representatives.

8) Discussion of inspection results with facility representatives. Both Mr. Austin and Mr. Stanga were present during the debriefing.

III. Requirements

A) Field/Sampling Operations

1) pH

Both the permittee and its contractor laboratory, Asarco, are monitoring the pH of the effluent. Data submitted on the discharge monitoring report is generated by Asarco though. The permittee has a continuous pH meter on site which does not have an automatic temperature compensator control. The permit requires that Christensen Diamin collect three grab samples per day per week for pH. Asarco records only showed three weeks of monitoring in a three month period.

pH is considered a field parameter and should be collected and analyzed at the facility in order to meet EPA recommended holding times. The frequency of collection should be as specified in the permit.

2) Flow Proportioning

Flow proportioning was not being done correctly at the time of the inspection. Six grab samples of equal volume were being collected and sent to the lab. The lab then made up the composite sample by taking equal volumes of sample from each of the grabs. The permittee needs to either supply the lab with flow data so that samples can be proportioned correctly at the lab or composite the samples correctly in the field.

B) Chemistry

1) Total Suspended Solids

a) Thermometers

The thermometer used in the solids oven should be checked against an NBS certified or traceable thermometer yearly and records of these checks should be kept.

b) Lab Water

The lab checks the conductivity of the lab deionized water daily, but no records of these checks are kept.

c) Analytical Balance

Asarco has a yearly service contract on their balances and records of service are kept. They also perform quarterly balance checks with Class S weights but do not record these checks.

2) Records

The permit requires that the date of analysis of effluent samples must be recorded. At the present time analysis dates are not on the computer report of the data. It is possible to track them through the analyst's lab books and worksheets, but for the permittees purposes it would be best if this data were on the final report.

IV. Recommendations

A) Field/Sampling Operations

It is recommended that all samples requiring preservation be preserved on site.

B) Chemistry

In order to improve the accuracy and reliability of the data generated by the laboratory, the following procedures are recommended.

1) EPA check samples for total suspended solids should be set up and run every tenth sample.

2) The laboratory presently runs known check standards 20 X to generate acceptance limits for metal and then runs these standards before and after each run as checks. We suggest running 1 reference standard per batch plus duplicate matrix spike samples every tenth sample. The reference standard will serve as a check on the standards and equipment while the duplicate matrix data will satisfy both the spike and duplicate recommendation, and give the lab data on matrix problems. Precision and accuracy data by matrix and parameter can then be generated.

3) Quality control acceptance criteria for past accuracy data should be summarized and included in the development of new acceptance criteria. (Presently the lab generates new acceptance criteria every six months to a year, discarding old acceptance criteria.)

4) Prepare a complete set of Standard Operating Procedures with references from which the methods were derived.

5) Asarco's procedure for total metals starts with a perchloric acid/nitric acid digestion. This digestion is more rigorous than the total digestion required by EPA (see Section 4.13 under Metals - page 6 in the 1979 Methods for Chemical Analysis of Water and Wastes for EPA method). It could be to the permittee's advantage to switch to the less rigorous EPA digestion procedure, since the EPA digestion may result in lower total metal concentrations. It is up to the permittee whether or not they wish Asarco to change their total digestion procedure to conform with EPA's since EPA considers this deviation from approved methodology to be an acceptable modification.

V. NPDES Performance Evaluation Results

Performance Evaluation results for Studies One and Two were reviewed with the laboratory. There were no problems with the reported results and all required parameters were analyzed.

VI. DMR Data Verification

All discharge monitoring report (DMR) data for the first quarter of 1982 was checked from raw data to the final report.

The date of analysis needs to be on the report sheet so that holding times can be tracked. Holding times for pH were not met since pH must be analyzed immediately on site. There was no way of tracking down when the solids samples were analyzed so it is unknown whether or not holding times were met.

An inadequate number of pH samples were collected for the laboratory to monitor. The permittee has an on-site continuous pH meter in addition to the laboratory pH meter so that the correct amount of data is available. However, it appears that the pH data generated by the laboratory was the only data used in filling out the DMR.

I. Summary

This report contains requirements and recommendations that will help Christensen Diamin conduct an improved self-monitoring program.

Facility and laboratory personnel were helpful during the inspection.

Summary of Major NPDES Self-Monitoring
Problems Requiring Corrective Action by Permittee

Facility Name: Christensen, Inc.
Permit Number: UT-0000531

DATE OF PAI: January 20 and 24, 1983

0060635

Problem Identified	Required Corrective Action	Information Required from Permitte
Composite samples are not being proportioned according to flow.	1. Proportion composite samples according to flow.	1. Statement that this will be done and implementation date.
pH data being reported on Discharge Monitoring Reports (DMRs) are not field pH data.	2. Start reporting on-site field pH data on DMRs.	2. Statement that this will be done and implementation date.
The on-site pH meter has a manual temperature compensator. However, since the pH is being monitored continuously, an automatic temperature compensator is necessary. Christensen ASARCO	3. Obtain an automatic temperature compensator for the pH meter if the pH is to be monitored continuously. However, if the pH is to be monitored weekly by 3 grab samples in an operating day as required by the permit, manually adjust the temperature for each grab sample.	3. Statement of what action will be done and when such action will be implemented.
Lack of laboratory deionized water check documentation.	4. Start documenting the daily conductivity checks.	4. Statement that this will be done and a copy of the first week's documentation.
Lack of laboratory thermometer checks	5. Check solids oven thermometer yearly against an NBS certified or traceable thermometer and keep records of these checks. Calibration should be performed in the range of use.	5. A copy of the calibration data.
Lack of documentation of analytical balance checks.	6. Document quarterly checks with Class "S" weights.	6. Statement that this will be done and a copy of the first calibration.
Records are not being kept of the dates the analyses are being performed.	7. Start recording the dates of analyses for all samples required to be monitored by the permit	7. Statement that this will be done and implementation date.

Christensen Diamond Inc.

SAMPLE TRACKING FORM

DMR REPORT DATE: 1/1/82 – 3/31/82

Parameter	DMR Reported value	Lab. Lab. Value	Holding time OK?	Instrument calib.	Stds.	Q.C. checks performed
(3X/day) pH effluent	min = 6.9 max = 8.2	min = 6.9 max = 8.2	no	3 stds -	okay	EPA quarterly
(1/mo) TSS effluent	<1.0 = min <1.0 = ave <1.0 = max	<1 = min <1 = ave <1 = max	?	balance checked quarterly no records.	—	EPA quarterly
(1/mo) Total Cr	min = .03 ave = .046 max = .08	min = .03 ave = .047 max = .08	yes <6 mos	3 stds + blank	2 check standards okay	ERA/EPA quarterly
(1/quarter) Cd	ave . 002	ave = .02 (only data pt.)	<6 mos	3 stds + blank	okay	EPA quarterly

Deficiencies:

1) date of analysis needs to be on report sheet - will have date of report, sampling date, + date rec'd. so h.t. can be tracked.
2) pH must be done at time of collection. no h.t.
3) not enough pH data.

RMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME CHRISTENSEN DIAMOND TOOLS, INC.
ADDRESS 1822 W. INDUSTRIAL
SALT LAKE CITY UT 84104

FACILITY
LOCATION
XXXXXXXXXXXXXXXXXXXXXXX ROY AUSTIN

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2000-0015

(2-16) UT0000531 PERMIT NUMBER

(17-19) FAC A DISCHARGE NUMBER

F - FINAL LIMITS
TOTAL REGULATED DISCHARGE

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	01	01	TO	82	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
00400 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******	6.9	******	8.2				
	PERMIT REQUIREMENT	******	******	******	6.5	******	9.0	SU		WEEKLY	COMPOS
SOLIDS, TOTAL SUSPENDED 00530 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******	<1.0	<1.0	<1.0				
	PERMIT REQUIREMENT	******	******	******	******	25	50	MG/L		ONCE/MONTH	COMPOS
OIL AND GREASE (OXBIET EXTR.) TOT. 00550 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******	******	0.0	0.0				
	PERMIT REQUIREMENT	******	******	******	******	******	10	MG/L		WEEKLY	VISUAL
CADMIUM, TOTAL (AS CD) 01027 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******		.002					
	PERMIT REQUIREMENT	******	******	******	******	.05	.1	MG/L		QTRLY	COMPOS
CHROMIUM, HEXAVALENT (AS CR) 01032 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******	.005	.005	.005				
	PERMIT REQUIREMENT	******	******	******	******	.05	.1	MG/L		ONCE/MONTH	COMPOS
CHROMIUM, TOTAL (AS CR) 01034 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******	.03	.046	.08				
	PERMIT REQUIREMENT	******	******	******	******	.1	.2	MG/L		ONCE/MONTH	COMPOS
COPPER, TOTAL (AS CU) 01042 1 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	******	.04	.06	.073				
	PERMIT REQUIREMENT	******	******	******	******	.5	1.	MG/L		ONCE/MONTH	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Roy Austin, Operations Mngr.
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
801	487-5371	82	04	08
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
NO AGENT OTHER THAN TRICHLORETHYLENE TO BE USED IN OPERATION UNLESS PRIOR WRITTEN APPROVAL IS GIVEN. NO CYANIDE TO BE USED FOR ELECTROPLATING. DAILY MAX LMT OF FLOW DOES NOT APPLY DURING PERIODS OF STORM H2O RUNOFF.

0060638

Location if different)

[illegible] DIAMOND TOOLS, INC.
[illegible]
SALT LAKE CITY UT 841[illegible]

FACILITY

LOCATION

ATT.: XXXXXXXXXXXXXXXXXXXXXXXX ROY AUSTIN

DISCHARGE MONITORING REPORT (DMR)

(2-16) UT00[illegible]531 — PERMIT NUMBER

(17-19) FAC A — DISCHARGE NUMBER

F - FINAL LIMITS
TOTAL REGULATED DISCHARGE

OMB No. 2000-0[illegible]

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	82	01	01	TO	82	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	******	******	******		.07					
01045 1 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	******	******	1.	2.	MG/L		QTRLY	COMP
LEAD, TOTAL (AS PB)	SAMPLE MEASUREMENT	******	******	******		.03					
01051 1 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	******	******	.1	.2	MG/L		QTRLY	COMP
ZINC, TOTAL (AS ZN)	SAMPLE MEASUREMENT	******	******	******	.05	.056	.07				
01092 1 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	******	******	.5	1.	MG/L		QTRLY	COMP
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	.0169	.026		******	******	******	******			
50050 1 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	114	189	MGD	******	******	******	******		CONTINUOUS	CONTIN
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Roy Austin, Operations Mngr.

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319. *(Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
801	487-5371	82	04	08
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

NO CHEMICAL OTHER THAN TRICHLORETHYLENE TO BE USED IN OPERATION UNLESS PRIOR WRITTEN APPROVAL IS GIVEN. NO CYANIDE TO BE USED FOR ELECTROPLATING, DAILY MAX LMT OF FLOW DOES NOT APPLY DURING PERIODS OF STORM H2O RUNOFF.

EPA Form 3320-1 (Rev. 10-79) PREVIOUS EDITION TO BE USED.

Christensen Diamond 1/1/82 - 3/31/82

~~7 sample~~

pH	h.t.	Cd	monthly TSS	h.t.	monthly Total Cr	h.t.	Date
7.3	not met	.002	<1		.08		1/7
7.4							2
7.6							
7.8							
7.7							
7.8							
7.4		<1			<.03		2-3
7.9							
7.9							
7.6							
8.0							
8.2							
6.9		<1			<.03		3-4
7.1							
7.3							
6.9							
7.0							
7.3							

1) date of analysis needs to be written down
new analysis sheet on computer will have date of analysis
date reported
date rcd
sample date

0060640

PARAMETER EVALUATION FORM

PARAMETER: Hex Cr ANALYTICAL LAB: Nsrco

METHOD USED: diphenylcarbazide / colorimetric APPROVED? YES X NO ___

METHOD REFERENCE: ↑

IS THE METHOD DOCUMENTED IN AN INTRA LAB FORMAT? SM 15th ed

ARE THERE ANY MODIFICATIONS TO THE REFERENCE METHOD? _____ IF YES,

EXPLAIN _____

CONTAINER/PRESERVATION USED: plastic / nitric acid Clark

ARE SAMPLE HANDLING PROCEDURES ADEQUATE? yes

ANALYTICAL EQUIPMENT USED: Spec 70

IS THE EQUIPMENT ADEQUATE? yes

REAGENTS USED: H_2SO_4, diphenyl carbizide

not filtered

ARE THE REAGENTS ADEQUATE? yes

ANALYSTS' NAMES: see previous pages

Cary Stange

ARE THE ANALYSTS PROPERLY TRAINED? _____

540 nm.

QUALITY ASSURANCE ACTIVITIES

IS THERE A DOCUMENTED QA PLAN? yes

ARE STANDARDS ANALYZED? yes FREQUENCY: each time 2 stds

ARE BLANKS ANALYZED? X yes FREQUENCY: each time 1 blank

initial SC of least 3 stds + a blank then checked each time.

ARE EXTERNAL STANDARDS ANALYZED? ERA FREQUENCY: quarterly & more

ARE DUPLICATES ANALYZED? no FREQUENCY: —

ARE SPIKES ANALYZED? blank spike FREQUENCY: every set of samples % REC: X

ARE QC CHARTS USED? yes

ARE ROUTINE STANDARDIZATION PROCEDURES ADEQUATE? maintenance contract on spec.

ARE MAINTENANCE PROCEDURES DOCUMENTED? yes

Only for Quintiansen Diamond samples - one a month. lab of QC.

ARE AUDIT RESULTS ACCEPTABLE? not available or audit

ARE DATA HANDLING PROCEDURES ADEQUATE? yes

ARE ALL NECESSARY RECORDS MAINTAINED? yes

REMARKS - _____

0060641

PARAMETER EVALUATION FORM

PARAMETER: pH ANALYTICAL LAB: Asarco

METHOD USED: electrometric APPROVED? YES X NO

METHOD REFERENCE: do have methods written for most - not for pH → Std Meth 15th ed, EPA 19[illegible]

IS THE METHOD DOCUMENTED IN AN INTRA LAB FORMAT? no

ARE THERE ANY MODIFICATIONS TO THE REFERENCE METHOD? IF YES,

EXPLAIN

CONTAINER/PRESERVATION USED: plastic

ARE SAMPLE HANDLING PROCEDURES ADEQUATE? yes - except for Christensen Diamond - need to do [illegible]

ANALYTICAL EQUIPMENT USED: Beckman Expandomatic SS-2

American Scientific Products, VWR or Fisher Std Buffers

only for Christensen Diamond

IS THE EQUIPMENT ADEQUATE? yes

REAGENTS USED: American SP buffers

ARE THE REAGENTS ADEQUATE? yes

ANALYSTS' NAMES: Gary Stanga?

ARE THE ANALYSTS PROPERLY TRAINED? BS Chem Utah, w/ 10 yrs experience in lab

QUALITY ASURANCE ACTIVITIES

IS THERE A DOCUMENTED QA PLAN?

ARE STANDARDS ANALYZED? yes FREQUENCY: each time

do have 7, 10, 4 Std. buffers.

ARE BLANKS ANALYZED? — FREQUENCY:

ARE EXTERNAL STANDARDS ANALYZED? yes FREQUENCY: ERA + EPA check samples ~1X/quarter

ARE DUPLICATES ANALYZED? — FREQUENCY:

ARE SPIKES ANALYZED? — FREQUENCY: % REC:

ARE QC CHARTS USED? —

ARE ROUTINE STANDARDIZATION PROCEDURES ADEQUATE? 2 buffers bracketing buffers

effluent pH 6.5 - 8

ARE MAINTENANCE PROCEDURES DOCUMENTED? file for each piece of equipment

ARE AUDIT RESULTS ACCEPTABLE? yes

do both ERA + EPA check samples.

ARE DATA HANDLING PROCEDURES ADEQUATE? worksheet → computer → report sheet → review final report sheet

ARE ALL NECESSARY RECORDS MAINTAINED? yes

REMARKS - - no problems

0060642

(Park City)

PARAMETER EVALUATION FORM   Storet # 000780

PARAMETER: Cyanide   ANALYTICAL LAB: Ameco

METHOD USED: Pyridine distill / Barbituric acid colorimetric   APPROVED? YES ✓ NO ____

METHOD REFERENCE: EPA 74

IS THE METHOD DOCUMENTED IN AN INTRA LAB FORMAT? yes (xeroxed EPA manual)

ARE THERE ANY MODIFICATIONS TO THE REFERENCE METHOD? —— IF YES,

EXPLAIN ____

CONTAINER/PRESERVATION USED: plastic / NaOH (lab checks pH when it comes in)

ARE SAMPLE HANDLING PROCEDURES ADEQUATE? < 7 days (varies) (48 hrs holding time probably don't meet, could meet h.t. get.)

ANALYTICAL EQUIPMENT USED: Beckman spec 70

are distilling.

IS THE EQUIPMENT ADEQUATE? yes

REAGENTS USED: Pyridine/barbituric acid, NaOH, H_2SO_4, chloramine-T

ARE THE REAGENTS ADEQUATE? yes

ANALYSTS' NAMES: John Hays

?-3 wk turnaround generally

ARE THE ANALYSTS PROPERLY TRAINED? yes

QUALITY ASURANCE ACTIVITIES

AE 78

IS THERE A DOCUMENTED QA PLAN? yes

ARE STANDARDS ANALYZED? 2 stds   FREQUENCY: checked w 2 stds per set.

ARE BLANKS ANALYZED? yes   FREQUENCY: 1 per set

ARE EXTERNAL STANDARDS ANALYZED? EPA check   FREQUENCY: quarterly → included w data

ARE DUPLICATES ANALYZED? no   FREQUENCY:

ARE SPIKES ANALYZED? no   FREQUENCY: - -   % REC:

ARE QC CHARTS USED? no

ARE ROUTINE STANDARDIZATION PROCEDURES ADEQUATE? yes. wavelength linearity check done by maintenance contractor

Standard curve 2 stds, blank ↓ do plot SC. run couple stds w sample each time check 2 stds w/ ea sample. SC. generated as need

ARE MAINTENANCE PROCEDURES DOCUMENTED? yes

ARE AUDIT RESULTS ACCEPTABLE? not in audit

- make up reagents

ARE DATA HANDLING PROCEDURES ADEQUATE? yes

Stds used as QC

ARE ALL NECESSARY RECORDS MAINTAINED?

REMARKS - maintenance contract on spec done yearly

PARAMETER EVALUATION FORM

PARAMETER: Lead, Dissolved + Total ANALYTICAL LAB: Asarco

METHOD USED: AA - direct aspiration APPROVED? YES X NO

METHOD REFERENCE: EPA 74

IS THE METHOD DOCUMENTED IN AN INTRA LAB FORMAT? yes

ARE THERE ANY MODIFICATIONS TO THE REFERENCE METHOD? — IF YES, EXPLAIN

CONTAINER/PRESERVATION USED: plastic preserved when come

ARE SAMPLE HANDLING PROCEDURES ADEQUATE? 2-3 wks

ANALYTICAL EQUIPMENT USED: PE 703

IS THE EQUIPMENT ADEQUATE? yes

REAGENTS USED:

ARE THE REAGENTS ADEQUATE? yes

ANALYSTS' NAMES: see previous pages

ARE THE ANALYSTS PROPERLY TRAINED? yes

QUALITY ASURANCE ACTIVITIES

IS THERE A DOCUMENTED QA PLAN? —

ARE STANDARDS ANALYZED? 3 stds FREQUENCY: per set of samples

ARE BLANKS ANALYZED? 1 blank FREQUENCY: per set of samples

ARE EXTERNAL STANDARDS ANALYZED? EPA, ERA FREQUENCY: quarterly or more

ARE DUPLICATES ANALYZED? no FREQUENCY:

ARE SPIKES ANALYZED? ✓ FREQUENCY: method spikes per set of sample % REC:

ARE QC CHARTS USED? plott spikes (accuracy) QC charts

ARE ROUTINE STANDARDIZATION PROCEDURES ADEQUATE? yes

ARE MAINTENANCE PROCEDURES DOCUMENTED? yes

ARE AUDIT RESULTS ACCEPTABLE? yes

no dissolved lead

ARE DATA HANDLING PROCEDURES ADEQUATE? yes

ARE ALL NECESSARY RECORDS MAINTAINED? yes

REMARKS - 1) check on digestion

2) suggest dup matrix spikes

[Margin notes:]

United Park City filter on site, do not preserve, do it in frig. sample comes lab at varying level.

dissolved lead + Zn, Cu run for United Park City on monthly

do not do matrix spikes except for weird matrices

mean ± 2 SD [illegible]

PARAMETER EVALUATION FORM

PARAMETER: Total Dissolved + Solids, Suspended ANALYTICAL LAB: Amoco

METHOD USED: gravimetric APPROVED? YES X NO

METHOD REFERENCE: EPA 74 manual

IS THE METHOD DOCUMENTED IN AN INTRA LAB FORMAT? yes - xeroxed EPA manual

ARE THERE ANY MODIFICATIONS TO THE REFERENCE METHOD? ______ IF YES,

EXPLAIN

CONTAINER/PRESERVATION USED:

ARE SAMPLE HANDLING PROCEDURES ADEQUATE?

ANALYTICAL EQUIPMENT USED: Cenco oven, NBS accurate therm. (SP), glass dessicators + cabinet

IS THE EQUIPMENT ADEQUATE? yes

REAGENTS USED: deionized water

ARE THE REAGENTS ADEQUATE? yes

ANALYSTS' NAMES: Vince Kelley, etc.

ARE THE ANALYSTS PROPERLY TRAINED? Soil Science

QUALITY ASURANCE ACTIVITIES

IS THERE A DOCUMENTED QA PLAN? — sort of

ARE STANDARDS ANALYZED? no FREQUENCY:

ARE BLANKS ANALYZED? yes FREQUENCY:

ARE EXTERNAL STANDARDS ANALYZED? ERA or EPA FREQUENCY: Once a quarter

ARE DUPLICATES ANALYZED? no FREQUENCY:

ARE SPIKES ANALYZED? FREQUENCY: % REC:

ARE QC CHARTS USED? —

ARE ROUTINE STANDARDIZATION PROCEDURES ADEQUATE? do calibrate balance quarterly. no check

ARE MAINTENANCE PROCEDURES DOCUMENTED? have maintenance files

ARE AUDIT RESULTS ACCEPTABLE? yes

ARE DATA HANDLING PROCEDURES ADEQUATE? yes - should keep cal info on equip.

ARE ALL NECESSARY RECORDS MAINTAINED? Keep data for [illegible] yrs in files, [illegible] for [illegible] outside. (Christensen [illegible] to 1979) (Nora [illegible] goes back to 1978)

REMARKS - (1) get papers on therm (call SP) require (2) NBS therm. needed

suggest (3) [illegible] records of [illegible]

[illegible] records of balance [illegible]

suggest (5) QC [illegible]

Left margin notes:

no records of cal of therm → do need to get papers.

oven holds temperature well.

deionized mixed bed exchange

conductivity meter → Erlenbach 500 x10^6 ohms (.1 µmhos)

check once a day not written down.

may be checked more than 1x per day.

[illegible] service [illegible] recorded + kept in balance [illegible]

Right margin notes:

QC data put in with regular samples.

only do few solids - for permits

0060645

multi element lamps
Pb, Cd, Zn, Fe
everything else single.

PARAMETER EVALUATION FORM

PARAMETER: Total Cu, Fe, Cd (Zn, Cu, Mn) ANALYTICAL LAB: Asarco

METHOD USED: direct aspiration AA APPROVED? YES X NO ___

METHOD REFERENCE: EPA, SM 15th edition

IS THE METHOD DOCUMENTED IN AN INTRA LAB FORMAT? yes - have their info

ARE THERE ANY MODIFICATIONS TO THE REFERENCE METHOD? ________ IF YES,

EXPLAIN ________

nitric / perchloric digestion

CONTAINER/PRESERVATION USED: plastic / not preserved w HNO3

ARE SAMPLE HANDLING PROCEDURES ADEQUATE? 2-3 wks. — preserve when come

ANALYTICAL EQUIPMENT USED: PE 703

IS THE EQUIPMENT ADEQUATE? yes

REAGENTS USED: primary standards - American Sp, etc

use total digestion →

ARE THE REAGENTS ADEQUATE? yes

3 mls HNO3 preserved; 15% HClO4; 85% HNO3

ANALYSTS' NAMES: Gary Stanger (Christensen Diamond) John Hays, Vince Kellen (United Park City).

ARE THE ANALYSTS PROPERLY TRAINED? yes

ATP ?

QUALITY ASURANCE ACTIVITIES

add HCl

IS THERE A DOCUMENTED QA PLAN? ________

ARE STANDARDS ANALYZED? 3 stds + blank FREQUENCY: per set of samples

ARE BLANKS ANALYZED? ✓ FREQUENCY: per set of samples (1-13)

ARE EXTERNAL STANDARDS ANALYZED? EPA, ERA FREQUENCY: quarterly or more

plot; do not SC; do check to be sure linear.

ARE DUPLICATES ANALYZED? no FREQUENCY: ________

ARE SPIKES ANALYZED? yes ~~not~~ (blank spikes (method) - per set) FREQUENCY: ~~occasionally~~ % REC: ____ — matrix effect ~~method~~ spikes not done

ARE QC CHARTS USED? blank spikes plotted on QC chart.

ARE ROUTINE STANDARDIZATION PROCEDURES ADEQUATE? yes

Spikes run for some samples dependent on matrix

ARE MAINTENANCE PROCEDURES DOCUMENTED? yes

ARE AUDIT RESULTS ACCEPTABLE? yes

ARE DATA HANDLING PROCEDURES ADEQUATE? yes

ARE ALL NECESSARY RECORDS MAINTAINED? yes

REMARKS - 1) check on digestion procedure - is it considered an ATP ?

2) ~~spikes + dups.~~ suggest dup matrix ~~spikes~~

QC sample [illegible] DOX [illegible] mean [illegible]

Scott M. Matheson
Governor

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS
Community Health Services
Environmental Health
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Health Care Financing
and Standards

OFFICES
Administrative Services
Health Planning and
Policy Development
Medical Examiner
State Health Laboratory

0060646

STATE OF UTAH
DEPARTMENT OF HEALTH
STATE HEALTH LABORATORY
44 Medical Drive, Salt Lake City, Utah 84113

Francis M. Urry, Ph.D., Director
Room 207 801-533-6131

Lab Certification File

July 6, 1983

American Smelting & Refining
Department of Environmental Sciences
Laboratory
3422 South 700 West
Salt Lake City, Utah 84119

Laboratory Evaluation By: Ralph A. Helfer
Laboratory Certification Officer
and Chemist
Quality Assurance Section
Bureau of Laboratory Improvement
State Health Laboratory
44 Medical Drive
Salt Lake City, Utah 84113

On June 30, 1983, I visited and conducted an on-site survey at the American Smelting and Refining Laboratory (ASARCO) in Salt Lake City, Utah. The purpose of this survey was the annual reevaluation of the quality of water analysis performed by this laboratory to determine its qualifications for continued interim certification under Federal and State environmental and drinking water regulations. The survey was conducted over a period of three hours and included an inspection of facilities, laboratory records, analytical methodology, and quality assurance programs. During the survey only one minor discrepancy was revealed which is already being addressed by laboratory personnel. A copy of the survey report is attached.

I. Introduction

The primary purpose of the on-site survey was to evaluate the quality of the ASARCO Laboratory's chemical analysis of water and wastewater. The survey consisted of the following seven steps:

1.) Introduction and briefing on the purpose of the survey.

2.) Discussion of sample collection, preservation, handling and transport techniques.

3.) Critical overview of laboratory procedures used in water analysis.

4.) A walk-through inspection of laboratory facilities.

5.) Review of laboratory recordkeeping procedures, operation and maintenance files, and documentation of self-monitoring.

6.) Discussion of survey results with facility representatives.

7.) Discussion of survey results with facility personnel.

II. Summary

The survey revealed one discrepancy which is addressed in Section III of this report. Laboratory personnel were cooperative and responsive throughout the survey.

Except as noted in Section III, the equipment and procedures employed in chemical analysis of water by the ASARCO Laboratory conform with provisions in "Standard Methods for the Examination of Water and Wastewater," 15th Edition, 1980; "Manual for the Interim Certification of Laboratories Involved in Analyzing Public Drinking Water Supplies," EPA, May, 1978; and "Criteria for Laboratory Certification," Utah, 1980. The ASARCO Laboratory has the necessary equipment, facilities, and trained personnel to conduct a satisfactory water monitoring program. Summary sheets containing details are attached.

III. Requirements

To maintain interim certification, the ASARCO Laboratory must comply with the following:

1.) Successfully complete annual performance evaluation audits from the USEPA and the Utah State Health Laboratory, Bureau of Laboratory Improvement.

2.) Notify the State Health Laboratory, Bureau of Laboratory Improvement in writing when transition to computerized Quality Assurance recordkeeping is completed.

At the time of survey, it was estimated that the computerized handling of Quality Control Data would begin on or about July 8, 1983. In the meantime, anticipation of this computerization has led to a relaxation of Quality Assurance requirements previously adhered to by the ASARCO Laboratory. Hopefully this discrepancy will have been resolved by ASARCO personnel before receipt of this survey report.

IV. Recommendations

None.

V. Commendations

The personnel at the ASARCO Laboratory have continued to upgrade and expand their laboratory's analytical capability. Laboratory appearance, organization and instrumentation are good examples of proper laboratory operation.

VI. Conclusion

With the exception noted in Section III of this report, the procedures and equipment employed at the time of this evaluation were in compliance with provisions contained in the manuals governing interim certification of water laboratories. Pending receipt of written notification as requested in Section III and satisfactory completion of the current State Performance Audit, I recommend that the analytical data from the ASARCO Laboratory be accepted for the analysis of water and wastewater under the Safe Drinking Water Act (PL93-523). I also recommend the ASARCO Laboratory be granted continued interim certification.

Sincerely,

Ralph A. Helfer

Ralph A. Helfer
Laboratory Certification Officer
and Chemist
Quality Assurance Section
Bureau of Laboratory Improvement
State Health Laboratory

Attachment

0060649

ON-SITE EVALUATION OF LABORATORIES INVOLVED IN ANALYSIS OF PUBLIC WATER SUPPLIES

CHEMISTRY (INORGANIC AND ORGANIC)

LABORATORY: ASARCO

STREET: 3422 South 700 West

CITY: SLC STATE: Utah 84119

SURVEY BY: Ralph A. Helfer

AFFILIATION: State Health Laboratory

DATE: 6/30/83

PERSONNEL

DEPARTMENT OF HEALTH
44 MEDICAL DRIVE
SALT LAKE CITY, UTAH 84113
AREA CODE 801
PHONE 533-6131

Laboratory ASARCO

Location SLC, UTAH

Date 6/30/83

Evaluator Ralph A. Helfer

Position/title	Name	Academic training			Present specialty	Experience (years/area)
		HS	BA/BS	Other		
Inorganic analyst(s)	Jim Rice			X	CHEM	16 years
	John Nokes			X	CHEM	5 years
	Vince Keller		X			3 years
	John Hayes		X			2 years
	Mickey Cameron			X		29 years
Organic analyst(s)						
Supervisor/consultant	Gary Stanga		X			7 years
Laboratory director	Don Robbins		X			19 years

0060650

0060651

LABORATORY FACILITIES

DEPARTMENT OF HEALTH
44 MEDICAL DRIVE
SALT LAKE CITY, UTAH 84113
AREA CODE 801
PHONE 533-6131

Laboratory ASARCO

Location SLC, UTAH

Date 6/30/83

Evaluator Ralph A. Helfer

Item	Available		Comments
	Yes	No	
Labspace (cite ft²/person)	X		Multiple laboratory rooms more than adequate
Bench space (linear feet)	X		More than adequate
Sink (with hot and cold running water)	X		
Electrical services	X		
Distilled water		X	None
Deionized water	X		Culligan TriBed
Exhaust hood	X		At least 1/Each room

GENERAL LABORATORY PRACTICES

0060652

DEPARTMENT OF HEALTH
44 MEDICAL DRIVE
SALT LAKE CITY, UTAH 84113
AREA CODE 801
PHONE 533-6131

Laboratory ASARCO

Location SLC, UTAH

Date 6/30/83

Evaluator Ralph A. Helfer

Item	Comments (Where applicable, cite system, quality check, adequacy of procedures)
Prepackaged kits	None
Calibration intervals	As required and logged
Glassware preparation	Soap and H_2O W/DI Rinse
Distilled deionized water	Culligan TriBed Exchange
Chemicals/reagents	Dated upon opening
Laboratory safety equipment	Glasses Fire extinguishers Laboratory aprons Shower in Each Laboratory Eye wash station each sink

LABORATORY EQUIPMENT AND INSTRUMENTATION SPECIFICATIONS

0060653

DEPARTMENT OF HEALTH
44 MEDICAL DRIVE
SALT LAKE CITY, UTAH 84113
AREA CODE 801
PHONE 533-6131

Laboratory ASARCO

Location SLC, UTAH

Date 6/30/83

Evaluator Ralph A. Helfer

Item	Number of units	Make	Model	Age/conditi
Analytical balance				
Photometers:				
Spectrophotometer				
Filter photometer				
pH Meter				
Specific ion meter				
Graphic Furnace Atomic absorption spectrophotometer	1	PE	503	NEW
Gas chromatograph Detectors FID & EC	1	Varian	3700	NEW
Recorders:				
For atomic absorption				
For gas chromatograph	1	Varian	9176	NEW
Conductivity meter				
Drying oven				
Desiccator				
Hot plate				
Refrigerator				
Glassware				
Water bath				

CHANGES SINCE 1982

DEPARTMENT OF HEALTH
44 MEDICAL DRIVE
SALT LAKE CITY, UTAH 84113
AREA CODE 801
PHONE 533-6131

Laboratory ASARCO

0060654

Location SLC, UTAH

Date 6/30/83

Evaluator Ralph A. Helfer

Item	Comments: system(s) used, frequency, etc.
Records kept for 3 years: Actual laboratory reports	Yes
Tabular summary	Yes
Information included: Date	Yes
Place of sampling	Yes
Time of sampling	Yes
Person collecting sample	Yes
Date of receipt of sample	Yes
Date of analysis	Yes
Type of analysis	Yes
Laboratory and person responsible	Yes
Method(s) used	In Methods Manual
Results	Yes

QUALITY CONTR

DEPARTMENT OF HEALTH
44 MEDICAL DRIVE
SALT LAKE CITY, UTAH 84113
AREA CODE 801
PHONE 533-6131

Laboratory ASARCO

Location SLC, UTAH 0060655

Date 6/30/83

Evaluator Ralph A. Helfer

Item	Done			Comments (system used)	Satis.
	Yes	No	Freq.		Yes
Minimum requirements: Quality control data available for inspection	X				X
Use of unknown performance sample	X				X
Documented standard curve	X				X
Standard curve checked prior to each sample set	X				X
Verification of standards (every 20 samples)	X				X
Optional requirements: Service contract on balances		X			X
Use of class S weights	X				X
Use of NBS-certified thermometer	X				X
Use of color standards				N/A	
Dating of chemicals	X				X
For lab analyzing samples other than its own					
Use of known reference samples	X				X
Use of duplicate samples	X				X
Standard deviation calculations	X				X
Quality control charts or tabulations			X	Changing over to computerization, but interim records not whate they should be.	X

[1] For use only by certifying authority.

0060656

Scott M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH
STATE HEALTH LABORATORY
44 Medical Drive, Salt Lake City, Utah 84113

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DIVISIONS
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Health Care Financing and Standards

OFFICES
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Health Planning and Policy Development
Medical Examiner
State Health Laboratory

August 18, 1983

Lab File

Donald A. Robbins, Director
American Smelting & Refining
Department of Environmental Sciences
3422 South 700 West
Salt Lake City, Utah 84119

Dear Mr. Robbins:

We have received your laboratory's Quality Control Program and the copies of the Quality Control data. Thank you for your cooperation and the fulfillment of Section III, item 2, of the Report of Survey dated July 6, 1983.

All that remains for completion of 1983 requirements is the results on the remake audit.

If I may be of assistance to your laboratory, please contact me at 533-6131.

Sincerely,

Ralph A. Helfer

Ralph A. Helfer
Chemist
Quality Assurance Section
Bureau of Laboratory Improvement

0060657 MOU

→ TAR

copy for main file

Scott M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH
STATE HEALTH LABORATORY
44 Medical Drive, Salt Lake City, Utah 84113

Francis M. Urry, Ph.D., Director
Room 207 801-533-3131

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Executive Director
801-533-6111

DIVISIONS
Community Health Services
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Health Care Financing and Standards

OFFICES
Administrative Services
Health Planning and Policy Development
Medical Examiner
State Health Laboratory

January 24, 1984

Donald A. Robbins, Director
American Smelting & Refining
Department of Environmental Sciences
3422 South 700 West
Salt Lake City, Utah 84119

Dear Mr. Robbins:

I have read your laboratory's Quality Assurance Manual and have found it more than adequately fills the requirements outlined in the "Manual for the Certification of Laboratories Analyzing Drinking Water", EPA, October 1982.

Thank you for your past support and timely submission of the required Quality Assurance manual. If I may be of future assistance to you or your laboratory, please contact me at 533-6131.

Sincerely,

Ralph A. Helfer

Ralph A. Helfer
Chemist
Quality Assurance Section
Bureau of Laboratory Improvement